Monitoring Data Record

Project Title: R-2000G (I-540) COE Action ID: 199920387
Stream Name: UT Neuse River (Site 10) DWQ Number: 030114
City, County and other Location Information: I-540, Wake County (Sta.460+53 -L- to 459+80 -L- RT.)
Date Construction Completed: April 2005 Monitoring Year: (2) of 5
Ecoregion: 8 digit HUC unit 03020201
USGS Quad Name and Coordinates:
Rosgen Classification: Proposed Reach: E5b
Length of Project: 312' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green and J. Young Date: 6/11/08
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Road Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us
Consultant Information:
Name:
Address:
Telephone Number: Email address:
Project Status: Complete

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level **1** ~~2~~ ~~3~~
Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

Permit States: NCDOT shall perform the following components of Level I monitoring twice each year for the 5 year monitoring period (summer and winter): Reference photos, plant survival, and visual inspection of channel stability. If less than two bankfull events occur during the first 5 years, NCDOT shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the 5-year monitoring period, the USACE, in consultation with resource agencies, may determine that further monitoring is not required.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site:
A total of 9 photos were taken from 4 photo point locations.
Dates reference photos have been taken at this site: 3/14/07, 7/16/07, 3/14/08, 6/11/08

Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference: A site map is included with this report showing the photo point locations.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):
An automobile accident occurred in June 2007 on I-540, which is adjacent to this stream relocation. The accident site carried over the guardrail and into the stream relocation area. Since, the accident has occurred steps have been taking to seed and mulch the area that was disturbed. Photo Point #4 upstream shows the stream relocation area where the accident occurred.

Estimated causes, and proposed/required remedial action: This area was replanted with bareroot seedlings and some additional live staking also took place.

ADDITIONAL COMMENTS: Streambank reforestation was completed on 2/27/07. Streambank reforestation included black willow and silky dogwood live stakes and tulip poplar,sycamore, green ash, and water oak bareroot seedlings. The planted live stakes and bareroot seedlings are surviving. Other vegetation noted on site included red maple, sweetgum, alder, goldenrod, lespedeza, cattails, sedge, fennel, *Juncus* sp., and various grasses.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

The stream is stable for the Year 2 Summer Evaluation. The previous bank erosion at the end of a crossvane arm @ Sta. 460+00-L- is stable at this time. Some additional live staking took place in this area to help stabilize the left streambank. Debris was deposited onto floodplain which indicates a bankfull event has occurred since the last monitoring evaluation. NCDOT will continue to monitor this stream relocation

7/16/07	Sta. 460+00	Station Number	Station Number	Station Number	Station Number
Structure Type	Cross vane				
Is water piping through or around structure?					
Head cut or down cut present?					
Bank or scour erosion present?	Minor bank erosion at the end of cross vane arm				
Other problems noted?					

NOTE: Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.

UT Neuse River

Photo Point #1 (Upstream)

Photo Point #1 (Upstream Looking at Culvert)

Photo Point #1 (Downstream)

Photo Point #2 (Upstream)

Photo Point #2 (Downstream)

UT Neuse River

Photo Point #3 (Upstream)

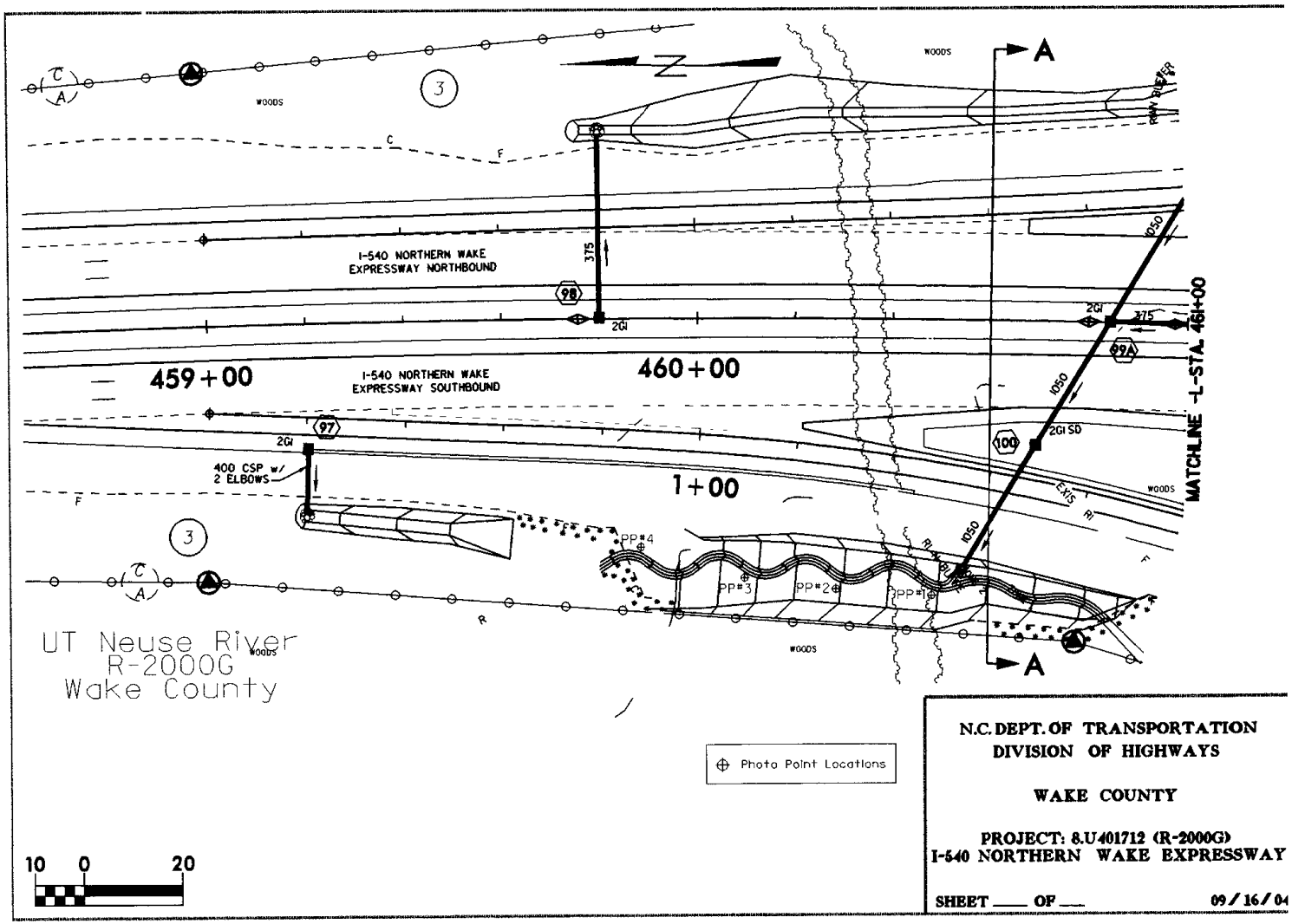
Photo Point #3 (Downstream)

Photo Point #4 (Upstream)

Photo Point #4 (Downstream)

Bank erosion on left bank at the end of a cross vane arm @ Sta. 460+00

Year 2 Summer – June 2008



UT Neuse River
R-2000G
Wake County

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

WAKE COUNTY

PROJECT: 8.U401712 (R-2000G)
I-540 NORTHERN WAKE EXPRESSWAY

SHEET ___ OF ___ **09/16/04**